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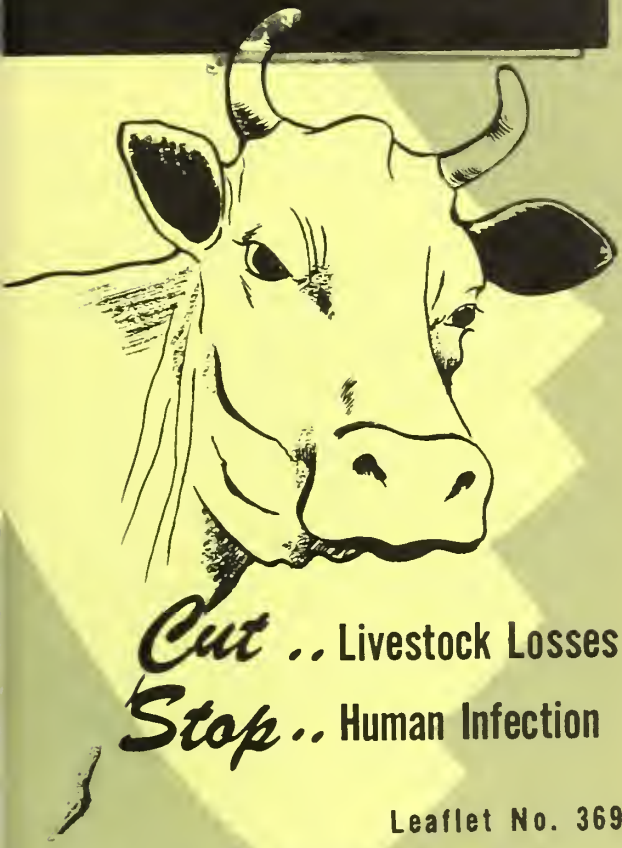
Wipe Out

BRUCELLOSIS



Cut .. Livestock Losses

Stop .. Human Infection

Leaflet No. 369

U. S. DEPARTMENT OF AGRICULTURE

You.. Can't Afford BRUCELLOSIS . . .

You can't afford brucellosis in your dairy or beef herd. The financial loss and the risk to the health of your family and customers are too great.

Brucellosis (formerly called Bang's disease or infectious abortion) has driven more dairy and beef cattlemen out of business than any other animal disease. Infected cows produce about 22 percent less milk than healthy cows. Calf crops from infected cows are cut about 40 percent.

In human beings, brucellosis is also known as undulant fever or Malta fever. Farm people contract the disease three times more often than city people, because there are more opportunities on the farm for exposure.

You'll find it harder today than ever before to do business unless your herd is brucellosis-free.

In 1953, the U. S. Public Health Service, in cooperation with the U. S. Department of Agriculture, revised the Milk Ordinance and Code to include requirements that market milk come from brucellosis-free herds. The ordinance serves as a standard for States and communities. It now requires, among other things, that milk sold for human consumption must be from herds certified to be following the most effective brucellosis-eradication plans approved by the Department of Agriculture. Hundreds of cities, counties, and some entire States have already adopted identical or similar regulations, reflecting the awareness of the public to the human health problem created by brucellosis.

The National Brucellosis Committee recommended in 1953 that a Federal regulation be enacted to regulate the movement of cattle from one State to another as a means of controlling brucellosis. The proposed regulation requires that such cattle be accompanied by a certificate, issued by an authorized veterinarian, showing that the cattle had been tested for brucellosis under proper supervision within 30 days of shipment and found negative. (Certain exceptions are included.)

What It Is . . .

Brucellosis is an infectious disease that is caused by bacteria. It affects principally cattle, hogs, and goats. Each group of animals is usually infected by its own type of organism: *Brucella abortus* in cattle, *Brucella suis* in hogs, and *Brucella melitensis* in goats. Man is susceptible to all three types of the disease. The goat and swine types are generally the most severe in man, but the cattle type is the most common.

Infection in man is almost always traceable to infected animals. There is no evidence that the disease spreads from man to man. Therefore, if brucellosis is to be eliminated in man, it must first be eliminated in animals. It is usually contracted by handling infected animals, aborted calves and placenta, or infected carcasses and meat, and by consuming raw or improperly pasteurized milk and milk products. It can also be contracted by inhaling contaminated dust.

No cure has yet been found for brucellosis in livestock. Some progress has been made in treating human brucellosis with antibiotic drugs.

What It Does . . .

Brucellosis causes (1) loss of calves by abortion, (2) temporary or permanent sterility, (3) lower sales value of infected animals, (4) decreased milk and meat production, (5) the breaking up of purebred breeding lines, and (6) greater costs for herd replacements.

It is hard to tell an infected animal from a healthy one in appearance, even in severe cases. Symptoms and effects may vary. Expelling a premature dead fetus is the most common symptom. Many infected cows and sows do not abort, but they carry the disease to animals that may do so. Abortions result from other conditions and are not absolute proof of brucellosis. If abortions do occur in a herd, brucellosis should be suspected.

In man, brucellosis causes long periods of disability. Victims suffer weakness, headache, painful joints, loss of weight and appetite, alternating chills and fever, profuse sweating, sleeplessness, and a numbness of the arms and legs. The disease usually is not fatal.

Losses to the livestock industry due to brucellosis are conservatively estimated to exceed $65 million a year. No estimate can be made of the loss caused by the disease in man.

Brucellosis can be WIPED OUT

A national cooperative program to wipe out brucellosis was started in 1934. Then about 10 percent of the cattle in the country were infected. By 1953 infection had been cut to about 3½ percent.

Testing is the important first step where immediate elimination of infected animals is desired. Two methods can be used—the *blood serum agglutination test* and the *ring test*. Each has its value.

The *blood test* shows if substances called agglutinins are in the blood. If they are present, it means that the animal either is or recently has been infected or vaccinated.

The *ring test* is a newer tool. The milk from an entire herd is tested. If there are infected animals producing milk, their presence will be detected. Individual reactors can then be located by the blood test. The ring test makes it possible to screen the herds in an area in a short time. An entire herd can be tested for about the cost of giving one animal the blood test.

Vaccination of calves with Strain 19 vaccine provides another valuable tool. It produces a resistance to infection that helps to reduce abortions in the herds where exposure may occur. Calfhood vaccination has proved particularly helpful as a first step in controlling the disease in highly infected herds.

Four Plans

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are now recommended as aids in the eradication of brucellosis. Adopt the one most suitable to your immediate situation, looking forward to using Plan A as soon as possible, if it is not economically advisable to adopt it at the start.

1

PLAN A.—Test the cattle, mark the reactors with a permanent identification, and move them from the premises promptly for slaughter. Calves may or may not be vaccinated.

2

PLAN B.—Test the cattle, mark reactors with a permanent identification, and place them under quarantine pending disposal. Vaccinate calves. (Reactors may be retained for a period not to exceed 3 years from the date of retention.)

3

PLAN C.—Vaccinate calves only. This plan is limited to herds from which untested and unvaccinated breeding cattle can be moved only under permit issued by State livestock sanitary officials.

4

PLAN D.—Vaccinate all nonreactor breeding cattle within 10 days after completion of test and the marking of all reactors with permanent identification. This plan can be used only after written approval of cooperating State and Federal agencies and is permitted as an emergency measure only in herds where there is evidence of rapid spread of the disease.

What the Livestock Owner Can Do . . .

The safest thing to do is to get in touch with your local, State, or Federal veterinarian and have your herd tested. If the disease is found, you and the State or Federal veterinarian should decide which of the four recommended plans best fits your needs. The important thing is to act promptly. The sooner brucellosis is wiped out, the sooner the financial drain on your operation is removed.

The most vital contribution you can make toward complete eradication is to arouse interest in the problem among your neighbors. No matter how careful you are with your own herd, you are not safe as long as your neighbors continue to bring brucellosis into the community. No laws, regulations, or program plans can ever be effective unless owners themselves are interested in wiping out the disease. Campaigns on a community or regional basis can and will do the job. Your county agent or State veterinarian will be glad to help.

North Carolina, New Hampshire, and Maine are now certified brucellosis-free. That proves we can wipe out brucellosis.

It's A COOPERATIVE EFFORT . . .

Many agencies and groups are working together in research, education, in advisory and administrative capacities to wipe out brucellosis: The National Brucellosis Committee; State and County Brucellosis Committees; U. S. Livestock Sanitary Association; the State agricultural experiment stations; the State extension services; State livestock sanitary officials; and the U. S. Department of Agriculture.

Animal Disease Eradication Branch
Agricultural Research Service

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